



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,173	01/31/2002	Hermann Putter	217838US0PCT	6239

22850 7590 08/12/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

9
EXAMINER

WONG, EDNA

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,173

Applicant(s)

PUTTER ET AL.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

This is in response to the Amendment dated June 24, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Specification

The disclosure has been objected to because of minor informalities.

The objection to the disclosure has been withdrawn in view of Applicants' amendment.

Claim Objections

Claims **1-2 and 11** have been objected to because of minor informalities.

The objection of claims 1-2 and 11 has been withdrawn in view of Applicants' amendment. Claims 1-2 and 11 have been canceled.

Claim Rejections - 35 USC § 112

I. Claims **2 and 3** have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The rejection of claims 2 and 3 under 35 U.S.C. 112, first paragraph, has been

withdrawn in view of Applicants' amendment. Claims 2 and 3 have been canceled.

II. Claims **1-14** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 1-14 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment. Claims 1-14 have been canceled.

Claim Rejections - 35 USC § 103

Claims **1-14** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Hermeling** (US Patent No. 5,266,171) in combination with **Shono et al.** ("Electro-organic Chemistry. Part 83. Electro-organic Transformation of Aldehydes and Ketones to α -Hydroxylated Acetals Utilizing Mediators and Some Synthetic Uses of the Products", J. Chem. Soc., Perkin Trans. 1, 1986, pp. 73-77).

The rejection of claims 1-14 under 35 U.S.C. 103(a) as being unpatentable over Hermeling in combination with Shono et al. has been withdrawn in view of Applicants' amendment. Claims 1-14 have been canceled.

Response to Amendment

Claim Objections

Claim **49** is objected to because of the following informalities:

Claim 49

line 7, a -- , -- (comma) should be inserted after the Roman numeral "IV".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims **15-52** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15

line 4, the alternative expression of the Markush group is improper. MPEP 2173.05(h). The word "and" should amended to the word -- or --.

line 8, if R^3 is a hydrogen, then how can R^3 additionally be an acetylated carbonyl group in which the alkoxy groups are derived from an alcohol of the general formula II: R^4 -OH, where R^4 is C_1 - to C_6 - alkyl (from claim 15, lines 15-19).

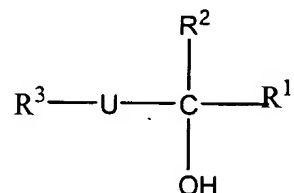
line 16, with regards to "the alkoxy groups" (plural), if R^3 is additionally an acetylated carbonyl group (singular), how can there be more than one alkoxy group in a single acetylated carbonyl group?

line 20, with regards to "the alkoxy groups" (plural), if U is an acetylated carbonyl group (singular), how can there be more than one alkoxy group in a single acetylated carbonyl group?

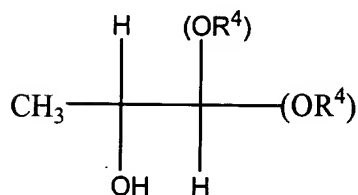
line 27, if R³ is a hydrogen, then how can R³ additionally be an acetylated carbonyl group having C₁- to C₆- alkoxy?

Claim 18

line 3, formula I is:



formula Ib (wherein m = 1) is:



formula Ib does not appear to be a compound that can be prepared by the

Please note: correspondingly, formula Ib would have the same problem as disclosed in the specification.

$$\begin{array}{c} R^2 \\ | \\ R^3 - V - R^1 \\ | \\ H \end{array}$$
$$\begin{array}{c} \text{H} \quad \text{O} \\ | \quad || \\ \text{CH}_3 - \text{C} - \text{C} - \text{H} \\ | \\ \text{H} \end{array}$$

Please note: correspondingly, formula Vb would have the same problem as disclosed in the specification.

Claim 23

line 1, "the electrolysis liquid" lacks antecedent basis.

Claim 24

line 1, "the electrolysis liquid" lacks antecedent basis.

Claim 25

line 1, "the electrolysis liquid" lacks antecedent basis.

line 7, "the general formulae I" (plural) lack antecedent basis.

Claim 26

line 3, "the other by-products of electrolysis from the above mentioned compound(s)" lack antecedent basis.

line 7, it appears that the "auxiliary electrolyte" is the same as that recited in claim 15, line 3. However, it is unclear if it is. If it is, then it is suggested that the word -- the -- be inserted before the word "auxiliary".

line 9, "the electrolysis liquid" lacks antecedent basis.

line 1, it appears that “the electrolysis” is the same as the electrochemical reaction recited in claim 15, line 2. However, it is unclear if it is. If it is, then it is suggested that “the electrolysis” be amended to -- the electrochemical reaction --.

line 3, “the general formula II” lacks antecedent basis. There is no formula II in the claim.

Claim 30

Claim 35

Claim 36

line 1, “the electrolysis liquid” lacks antecedent basis.

Claim 37

line 3, "the general formula V" lacks antecedent basis.

line 4, "the general formula II" lacks antecedent basis. There is no formula II in the claim.

line 7, "the general formulae I" (plural and the formula) lacks antecedent basis.

line 9, "the general formulae ... V" lack antecedent basis.

Claim 38

lines 2-3, "the general formulae ... V" lack antecedent basis.

line 3, "the other by-products of electrolysis from the above mentioned compound(s)" lack antecedent basis.

line 5, "the general formula II" lacks antecedent basis.

line 7, it appears that the "auxiliary electrolyte" is the same as that recited in claim 29, line 3. However, it is unclear if it is. If it is, then it is suggested that the word -- the -- be inserted before the word "auxiliary".

line 9, "the electrolysis liquid" lacks antecedent basis.

Claim 39

line 1, it appears that "the electrolysis" is the same as the electrochemical reaction recited in claim 29, line 2. However, it is unclear if it is. If it is, then it is suggested that "the electrolysis" be amended to -- the electrochemical reaction --.

Claim 41

line 3, "the general formula II" lacks antecedent basis. There is no formula II in the claim.

line 4, the alternative expression of the Markush group is improper. MPEP 2173.05(h). The word "and" should be amended to the word -- or --.

line 17, it is unclear how formula Vb, $H_{2m+1}C_m-CH_2-CHO$, is electrochemically reacted to prepare formula IV, $R^3-V-W-O-R^4$. The starting compounds: formula Vb, alcohol, auxiliary electrolyte and metal salt do not contain an aryl group in order for R^3 to be exclusively substituted or unsubstituted aryl. Thus, where does the aryl come from?

Furthermore, Applicants' specification recites that formula Vb prepares formula Ib (page 5, lines 3-13). Formula Ib from the specification does not look like formula IV in

Claim 42

line 4, there is no definition for "R⁵" in the claim.

line 5, “the general formula Va” lacks antecedent basis.

line 7, there is no definition for "R⁵" in the claim.

Claim 47

line 1, "the electrolysis liquid" lacks antecedent basis.

line 7, it appears that the "auxiliary electrolyte" is the same as that recited in claim 41, line 3. However, it is unclear if it is. If it is, then it is suggested that the word -- the -- be inserted before the word "auxiliary".

line 9, "the electrolysis liquid" lacks antecedent basis.

Claim 51

line 1, it appears that "the electrolysis" is the same as the electrochemical reaction recited in claim 41, line 2. However, it is unclear if it is. If it is, then it is suggested that "the electrolysis" be amended to -- the electrochemical reaction --.

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the claims.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claims **15-28** define over the prior art of record because the prior art does not teach or suggest a process for the preparation of a compound of the general formula I comprising the step of subjecting as presently claimed, esp., wherein catalytic amounts of a metal salt (S) derived from sub-groups Ib (11), IIb (12), VIb (6) and VIIIb (8, 9, 10)

of the periodic chart or from lead, tin or rhenium.

Claims **29-40** define over the prior art of record because the prior art does not teach or suggest a process for the preparation of a compound of the general formula I comprising the step of subjecting as presently claimed, esp., wherein catalytic amounts of a metal salt (S) derived from sub-groups Ib (11), IIb (12), VIb (6) and VIIIb (8, 9, 10) of the periodic chart or from lead, tin or rhenium.

Claims **41-52** define over the prior art of record because the prior art does not teach or suggest a process for the preparation of a compound of the general formula I comprising the step of subjecting as presently claimed, esp., wherein catalytic amounts of a metal salt (S) derived from sub-groups Ib (11), IIb (12), VIb (6) and VIIIb (8, 9, 10) of the periodic chart or from lead, tin or rhenium.

The prior art does not contain any language that teaches or suggests the above. *Shono et al.* teaches potassium iodide (KI). Potassium is a member of Group I (the alkali metal group) and not Group IB. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

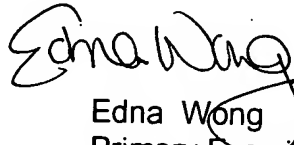
Claims 15-52 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (703) 308-

3818. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt.
Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.


Edna Wong
Primary Examiner
Art Unit 1753

EW
August 7, 2003